

# 1

## Student Engagement and Disengagement in Urban High Schools

We can require adolescents to attend school, but learning requires conscious and purposeful effort, which cannot be legislated. This volume is about motivating adolescents to be engaged—cognitively, behaviorally, and emotionally—in their coursework and in the broader array of school-based activities. Motivation is essential to learning at all ages (Finn and Rock, 1997; Jessor, Turbin, and Costa, 1998; National Research Council, 2000), but it becomes pivotal during adolescence as youth approach the threshold to adulthood. Younger children who become mentally and emotionally disengaged generally are compliant enough to attend school, or they do not have the means to avoid it. But adolescents who are bored, distracted, emotionally troubled, **or do not see the value of schooling** have the means to drop out of school altogether.

Even if they do not drop out of school, adolescents have many alternative activities to occupy their time and attention, including working for pay, sports, video games, social activities, and for some, less socially sanctioned activities. A national survey of more than 2,000 youth in grades 7 through 12 found that about 40 percent of the students worked a median of 3 hours on an average school day, and spent 2 hours “hanging out with friends.” The median number of hours worked by Black students was 4 hours. The average adolescent watches nearly 3 hours of television a day, and adolescents of color watch more on average (The Kaiser Family Foundation, 1999). Schools, therefore, have considerable competition for the attention of their clients. It is not surprising that homework does not necessarily have

a high priority, despite its apparent contribution to learning (Cooper, Lindsay, Nye, and Greathouse, 1998).

Research on motivation and engagement is essential to understanding some of the most fundamental and vexing challenges of school reform. Improving meaningful learning depends on the ability of educators to engage the imaginations of students—to involve them in new realms of knowledge, building on what they already know and believe, what they care about now, and what they hope for in the future (National Research Council, 2000). At the very least, increasing students' academic achievement requires improvements in attendance, attention, and completion of schoolwork.

Increasing motivation and engagement is unlikely to be accomplished by simple policy prescriptions, such as raising standards, promoting accountability, or increasing school funding—although these may be helpful in the right set of circumstances. The fundamental challenge is to create a set of circumstances in which students take pleasure in learning and come to believe that the information and skills they are being asked to learn are important or meaningful for them and worth their effort, and that they can reasonably expect to be able to learn the material.

As this volume makes clear, there are no silver bullets. Some students are motivated even under adverse circumstances, but for many students their engagement and motivation to learn depend on a confluence of supports, none of which is sufficient on its own. These supports include

- a challenging but individualized curriculum that is focused on understanding;
- knowledgeable, skilled, and caring teachers;
- a school culture that is centered on learning;
- a school community that engenders a sense of support and belonging, with opportunities to interact with academically engaged peers;
- strong ties linking the school with students' families and communities;
- an organizational structure and services that address students' non-academic needs; and
- opportunities to learn the value of schoolwork for future educational and career prospects.

Motivation to be actively engaged is essential to learning, whether students are in schools that are located in urban, suburban, or rural communities. The focus of this volume, however, is on what urban high schools can do to more effectively engage students—especially low-income students and students of color who are disproportionately concentrated in these schools. Although the core principles involved in making schools more

engaging apply to all schools, we chose to focus on high-poverty urban high schools because students there are more likely than others to become disaffected and drop out, and the social and economic consequences of disengagement for them are severe.

A great deal is known about the needs of adolescents and about the conditions that motivate them to learn and stay in school. We know how to do a better job of engaging high school students in learning activities that will help them achieve the kinds of postsecondary educational and career opportunities they desire. We also know of urban schools serving low-income students and students of color that have substantially decreased dropout rates, increased attendance, and improved achievement and the educational and career prospects of their graduates.

We have seen youth considered at risk of school failure fighting to be heard in an English class discussion on Shakespeare and insisting on finishing a science experiment long after the bell has rung—students who experience the joy of learning and take great pride in their accomplishments. Although far too rare, such success stories undermine the credibility of pessimists and naysayers.

We focus on what schools can do, recognizing that many of the reasons for a young person's disengagement from school lie far beyond school. We are also mindful of the difficulty of increasing adolescents' motivation and engagement in schoolwork in urban neighborhoods where joblessness and poverty are endemic, violence and homelessness are common, and access to resources and opportunities are scarce. The effects of poverty on child and adolescent outcomes, regardless of the schools they attend, have been well documented (see, for example, Duncan and Brooks-Gunn, 1997). Urban schools, however, do not usually take advantage of the resources their communities offer. Paradoxically, although many of the most troubled neighborhoods are located in metropolitan centers of great wealth and resources, access to the alluring educational and career resources of the city has been all but blocked for most students in high-poverty, urban high schools.

Poverty conditions affect children's opportunities to learn in elementary and middle school as well, and many urban high schools are challenged by a large proportion of students who have very poor skills, have experienced failure for many years in school, and as a result have become seriously alienated from academic work. It is not easy to promote enthusiasm in students who enter with low motivation and have a long way to go to master a high school curriculum.

The obstacles created by poverty and the legacy of racism are profound and need to be addressed in any truly comprehensive approach to improving urban adolescents' engagement and motivation to learn. As a society, we should not tolerate the ways in which children's opportunities are lim-

ited by the circumstances of their birth, and as we work to improve schools, we must also work for better conditions in our communities and a fairer and more equitable society.

Despite limitations in what can be accomplished in high schools alone, we believe we have a responsibility to use what we know to better engage adolescents in learning and prepare them for future opportunities and the adult roles and responsibilities they are about to assume. With sufficient societal will and the knowledge that now exists, we can make a measurable difference.

### HIGH STANDARDS AND DEMOCRATIC VALUES

Nearly half a century ago, educational philosopher John Dewey and others claimed that if schools were to succeed in preparing the great majority of young people, not just a select few, to be responsible and productive citizens, they would have to do a much better job of motivating and engaging the broad spectrum of students in learning (Cremin, 1961; Dewey, 1956; Hall, 1969). The history of high schools in the United States nevertheless shows alternating emphases on academic rigor associated with the need to prepare some students for college, and the democratizing function of schools—having schools address the needs and engage the interests of all students, including those who traditionally have not been college bound (Powell, Farrar, and Cohen, 1985).

In the past half-century, the emphasis on academic standards of the 1950s gave way to a concern for equity in the 1960s, and then back to high standards and basic academic skills in the early and mid-1980s. Since then, there has been some wavering, but the dominant policy emphasis that has emerged at the start of the 21st century has been to hold all students accountable for achieving high educational standards (National Research Council, 2002a; U.S. Department of Education, 2002), focusing especially on reading and math. For this to occur, a much broader range of students must become engaged in learning the kinds of curricula that, until recently, only students bound for 4-year colleges were expected to master.

Some education analysts have expressed concern that raising standards for students who are performing poorly will increase their alienation or disengagement from school rather than motivate them to exert more effort (e.g., Futrell and Rotberg, 2002; Sheldon and Biddle, 1998), or that the concentration on English and math only will impoverish the curriculum. If imposing higher standards is the only intervention, these are likely outcomes. But the research discussed in Chapters 2 and 4 of this volume indicates that under the right circumstances, challenging students to learn more demanding curricula increases their motivation and engagement. Unfortunately, few high schools to date have provided the context or

supports that enable most students to achieve high standards. Significant reforms will be needed to motivate all students to be sufficiently engaged in their schoolwork to meet more demanding expectations.<sup>1</sup>

### IMPORTANCE OF SOCIAL RELATIONSHIPS

Although learning involves cognitive processes that take place within and between the individuals, motivation to learn depends on a student's involvement in a web of social relationships. The likelihood that students will be motivated and engaged in learning is increased to the extent that their teachers, family, and friends, as well as others who shape the instructional process, effectively support their purposeful involvement in learning (Cohen and Ball, 1999). Thus the focus on motivation and engagement calls attention to the interface between the learner and the social context in which learning takes place.

The notion that the personal value of our lives is determined largely by the social relations that take place in the communities to which we belong reflects a classic Aristotelian perspective on human nature (Lee, Bryk, and Smith, 1993; see also MacIntyre, 1981; Newmann and Oliver, 1967). It is also a perspective that is very much consistent with the views of John Dewey. **For Dewey, building an engaging school community is not just a strategy to improve academic outcomes; it is essential to education itself** (see Lee et al., 1993, p. 226).

It is not coincidental that many of the qualities associated with engaging schools also have been found to foster healthy youth development (Eccles et al., 1993; Institute of Medicine, 1997; McNeely, Nonnemaker, and Blum, 2002; National Research Council, 2002a; Rosenfeld, Richman, and Bowen, 2000) and to confer resilience to individuals who otherwise might be at risk for adverse psychological and social outcomes (Berand, 1992; Connell, Spencer, and Aber, 1994; Finn and Rock, 1997; Jessor et al., 1998; Rutter, 1985). High schools, like other programs for youth, promote positive development in adolescents by addressing their needs for safety, love and belonging, respect, power, and accomplishment. They do this by establishing caring relationships with adults, maintaining positive

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<sup>1</sup>"High standards" is not defined in this volume as being able to pass a high-stakes test, such as an exam required for a high school diploma, although that might be one indicator of the standards of achievement that students are achieving. **By "high standards" we mean that high school graduates should have mastered the skills they need to succeed in a postsecondary academic education program.** Expectations for students on the path to meeting this ultimate standard need to be individualized, so that all students are challenged by their instructional program.

and high expectations, and providing students with opportunities to participate and contribute (Berand, 1992, 1997).

### THE STATUS QUO

Unfortunately, various studies have found that high schools are failing to engage their students, thereby providing them with neither the kind of social environment that fosters healthy psychosocial development (McNeely et al., 2002; National Research Council and Institute of Medicine, 2002) nor one that is conducive to learning (Finn and Rock, 1997; Jessor et al., 1998; National Research Council, 2000).

In 1974, Urie Bronfenbrenner described high schools as potent breeding grounds of alienation, and recent studies provide some empirical support for this proposition. Some studies have found that 40 to 60 percent of high school students are chronically disengaged; they are inattentive, exert little effort, do not complete tasks, and claim to be bored. This figure does not include those who already have dropped out (Marks, 2000; Sedlak, Wheeler, Pullin, and Cusick, 1986; Steinberg, Brown, and Dornbush, 1996).

Low motivation is not unique to urban schools. In a 3-year study of students from nine high schools, Steinberg et al. (1996) found that fewer than half of the students reported taking school or their studies seriously; this was equally true of students in affluent suburban schools and those in poor urban communities. Half of the students they surveyed considered their classes to be boring. A national study of a representative sample of high school seniors found that only 27 percent indicated that "knowing a lot about intellectual matters" was of great importance for having "high status" at their school (National Center for Education Statistics, 2001b, p. 141).

When students do exert effort, it is primarily to earn grades. A survey of more than 100,000 7th through 11th graders in 15 ethnically mixed school districts serving students at all economic levels asked students, "When you work really hard in school, which of the following reasons are most important to you?" The most frequently checked option, chosen by about three-quarters of the students from all ethnic and socioeconomic groups, was, "I need the grades to get into college." An ethnographic study of students in a high school in an affluent community also revealed that students considered their efforts to obtain good grades as the price of admission to a competitive college. Students were strategic, even conniving, **focusing on "doing school" rather than on learning** or mastering academic material (Pope, 2000).

Poor motivation to learn is more serious at the high school level than in earlier grades. Many studies show that as students progress from elementary to middle school and on to high school, motivation and academic

engagement steadily decline (Eccles and Wigfield, 1992; Eccles, Wigfield, and Schiefele, 1998; Epstein and McPartland, 1976; Marks, 2000; McDermott, Mordell, and Stolzful, 2001; National Center for Education Statistics, 2000b; Stipek, 2002). Recent national data show that student absenteeism (measured as cutting classes or skipping school for reasons other than illness) increases substantially with grade level—11 percent of 8th graders, 17 percent of 10th graders, and 33 percent of 12th graders reported skipping at least 1 day of school during a 4-week period (National Center for Education Statistics, 2002).

Corresponding to the gradual decline in student engagement, international comparisons reveal that the academic performance of U.S. students in mathematics and science slips from near the top of the list of 48 countries at the elementary level to near the bottom during the high school years (National Center for Education Statistics, 1999a). The poor performance of U.S. high school students is explained partly by the increasing disparities in performance associated with race/ethnicity and socioeconomic status found as students progress through school. But the academic achievement even of the top-performing high school students from the United States compares unfavorably with that of their counterparts in other nations (National Center for Education Statistics, 1998b).

Explanations for the poor showing of American high school students abound, but themes do emerge. Darling-Hammond (1997, p. 15) notes that several analyses of American education (cf. Boyer, 1983; Goodlad, 1984; Sizer, 1984) have been remarkably similar in their critiques of a system that has sought to “manage schooling simply and efficiently by setting up impersonal relationships, superficial curricula, and routinized teaching.” High schools that are large, bureaucratized, and fragmented compound the problem of uninspired pedagogy. Unless students in these schools come with their own intrinsic motivation to learn (or at least to get good grades), they are likely to feel alienated from their teachers and coursework (Boston Plan for Excellence in the Public Schools, 2001; Halperin, 1998; William T. Grant Foundation, 1988).

The typically large, comprehensive high school offers a wide range of courses intended to match students' diverse interests and skill levels. Although the specialized topical courses of the “shopping mall high school” (Powell et al., 1985) provide students with choices, such schools lack a sense of community and the kind of unifying sense of purpose that the research reviewed in this volume indicates is needed to effectively engage students in what Hill, Foster, and Gendler (1990) call “high schools with character,” with distinctive purposes and identities. The “shopping mall high school” is also not sharply focused on ensuring that all students acquire the intellectual skills they need to be well prepared for adulthood.

The large, comprehensive high school, the predominant model in the

United States, is in serious need of reform. Too many students are falling through the cracks—physically dropping out and psychologically tuning out. The steady decrease in school engagement and motivation to learn that occurs as students progress from the early grades, through middle school, and into high school, and corresponding drop in the ranking of U.S. students relative to their international counterparts in standardized measures of learning, strongly suggest that something is seriously wrong with American high schools. The current situation is aptly described in a summary of a focus group conducted with Boston high school students:

In Boston's non-exam high schools, the profound alienation from school of the majority of the students and their intense need for belonging cannot be exaggerated. Though Boston has well-developed career pathways, the bottom half of students is largely invisible and left out, leaving the majority of students with no trajectory or sense of where school might get them. Many of these students drop out before they enter grade ten (Boston Plan for Excellence in the Public Schools, 2001).

### URBAN HIGH SCHOOLS

Some urban high schools have excellent records of equipping their students with the skills they need to succeed in postsecondary education and in the workplace. But as a group, they are failing to meet the needs of too many of their students (Hill, Campbell, and Harvey, 2000; Lippman, Burns, and McArthur, 1996). Improving the quality of urban high schools is critically important not only for the students who attend them, but also for the future prosperity and quality of life of cities and the nation as a whole (Hill et al., 2000).

High schools do not exist in a vacuum. The environments students live in before high school and those in which the school and its students are enmeshed greatly shape what goes on in a school (Brooks-Gunn and Duncan, 1997). Although the growing complexity of life for children and families across the socioeconomic spectrum has made school engagement a challenge for all, the problem is greatest for schools in marginalized urban communities with high concentrations of poverty (Balfanz, 2000; Neild and Balfanz, 2001; Orland, 1990).

Despite facing greater challenges, resources are relatively poor in urban schools (Augenblick, Myers, and Anderson, 1997; Parrish, Hikido, and Fowler, 1998; Schwartz, 1999), which explains in part why urban schools serving low-income children also have the least qualified teachers (Darling-Hammond, 2002; Ferguson, 1998; Oakes, 1990) and the highest teacher absenteeism and turnover (Lippman et al., 1996, pp. 88-97). Inequities exist even within urban districts, with the schools serving relatively more affluent students spending more per student than schools serving very low-



income students (Roza and Miles, 2002). Conditions in some urban schools are deplorable, with students neither expected nor given much opportunity to learn (see Fine, 1994; Kozol, 1992; Meier, 2002; Valenzuela, 1999). It is commonplace for the weakest and least experienced teachers to be assigned to the neediest students and for course offerings to preclude most students from meeting college entry requirements. School buildings are frequently dilapidated and nonfunctioning, and provide no opportunities for recreation.

These conditions make it difficult to establish trust, respect for authority, and the kinds of relationships in the school community among students, teachers, staff, and parents that are needed for students to develop and achieve their potential (Comer, 1980; Comer, Haynes, and Joyner, 1996). It is not surprising that students in urban high schools claim to feel less socially connected to their schools than do students attending suburban high schools (Anderman, 2002). Thus, students with the greatest needs currently receive the least adequate resources.

### Urban Students

The exact statistical profile of urban students depends on how "urban" is defined. More than 28 percent of all students are enrolled in urban schools when urban is defined to include all cities with a population of at least 50,000 that are the core of a metropolitan statistical area (MSA) or consolidated metropolitan statistical area (CMSA). Slightly more than 15 percent of all students attend urban schools using a more restrictive definition that includes only cities of at least 250,000 (National Center for Education Statistics, 1998a). However "urban" is defined, urban students disproportionately come from families with incomes below the poverty line, attend schools where a high percentage of students are poor, live in socially and economically distressed neighborhoods, and are from a racial or ethnic minority group.

Nearly a third (30.5 percent) of children ages 5 to 17 living in the 100 largest cities are living in poverty, compared to 22 percent in midsize cities, 13.3 percent in suburbs, and 19.3 percent in towns and rural areas (Council of Great City Schools, 2000). The concentration of poverty in urban areas is growing. Between 1970 and 1990, the percent of U.S. children who resided in distressed neighborhoods in the 50 largest cities rose from 3 to 17 percent (Annie E. Casey Foundation, 1997).

Given the large proportion of urban children who live in poverty, it is not surprising that children living in large urban areas are most likely to attend schools with substantial concentrations of economically disadvantaged students. One national sample of elementary, middle, and high school students showed that 40 percent of urban students attend high-poverty

TABLE 1-1 Percentage of Urban Elementary and Secondary Students by Race/Ethnicity

	White	Asian/ Pacific Islander	Black	Hispanic	Total
Big city	24.8	7.3	35.5	31.7	99.3
Medium city	53.7	3.6	24.3	16.6	98.2
All schools	61.4	4.0	16.9	16.0	98.3

NOTE: Nationally, Native Americans are 1.4 percent of all students. Data are unavailable for urban locations.

SOURCE: National Center for Education Statistics (2000a).

schools (defined as schools where the poverty concentration is at least 40 percent), compared to only 10 percent of suburban students and 26 percent of rural students (Lippman et al., 1996).

Black and Hispanic students are far more likely than Asian and white students to attend urban schools in general, and high-poverty urban schools in particular (Lippman et al., 1996, p. 10).<sup>2</sup> Furthermore, urban schools have a disproportionate number of students of color (see Table 1-1). In a report documenting a trend toward the growing segregation of low-income students of color in poorly performing urban schools, Orfield (2002) has found that in schools where 50 to 60 percent of the students are Black or Hispanic, on average at least 60 percent of the students are poor. In schools where at least 80 percent of the students are Black or Hispanic, an average of 80 to 90 percent of the students are poor.

All of the demographic characteristics of urban school students are statistically associated with poorer educational outcomes (Halpern-Felsher et al., 1997; Jencks and Phillips, 1998; National Research Council, 2002c), although the causal mechanisms that produce these outcomes are not well understood (Connell, Halpern-Felsher, and Brooks-Gunn, 1997). Concentrated poverty in the neighborhoods where students live is also associated with lower school achievement (Abt Associates, 1993; Catsambis and Beveridge, 2001; National Research Council, 1990; Orfield, 1999; U.S. Department of Education, 2000). Furthermore, an analysis of data from the National Longitudinal Survey of Youth (Guo, 1998) found that poverty in adolescence, or concurrent poverty, has a greater influence on adolescent achievement in school than poverty earlier in life. Schellenberg (1999, p.130) concludes from his review of four interlocking studies he conducted in the St. Paul, MN, public schools “ . . . the degree to which poor children are

<sup>2</sup>Information on Native Americans was not given in most of the demographic data found.

surrounded by other poor children—both in their neighborhood and at school—has as strong an effect on their achievement as their own poverty. Concentration of poverty in the neighborhood and the school affects all children, poor and non-poor.” Lippman et al. (1996) examined whether differences in measures of engagement and achievement persisted after controlling for the effects of school poverty concentration. They found that after the greater concentration of poverty in urban schools was statistically controlled, differences between groups of students on virtually all indicators of engagement and achievement either disappeared or were greatly diminished.

Variables associated with neighborhood poverty (e.g., violence, instability in living arrangements) can have an effect on academic achievement as well. For example, McLanahan (1985) found that among white single-parent households, poverty and the stress associated with family disruption accounted for nearly all of the negative effects of family structure on children’s educational attainment (i.e., dropping out from high school); for Black households, the results were more mixed. In households of all ethnic groups, young adolescents living in poverty received fewer opportunities for learning stimulation and spent less time with their parents, especially their fathers (Bradley, Corwyn, McAdoo, and Coll, 2001).

Research by Brooks-Gunn and Duncan (1997) explores the ways in which neighborhood conditions create “pathways” or mechanisms through which family income operates to affect indicators of children’s well-being. These indicators include school achievement (e.g., grade repetition, expulsion or suspension, dropping out of school), cognitive outcomes (e.g., difficulty in learning to read), emotional outcomes (e.g., being treated for an emotional problem), and physical health outcomes (e.g., lead poisoning, chronic asthma). The mechanisms are complex, and there is still much to learn. What is clear is that the deck is stacked against children who live in large urban communities with a high concentration of families living in poverty.

Making matters worse, as the percentage of students at a school who are living in poverty rises, the school conditions needed to enable those students to succeed (e.g., sufficient resources, teacher quality, educator stability, small school size) decline (see Darling-Hammond, 1990; Lippman et al., 1996; National Research Council, 2002d; Rebell, 2002; Wasley et al., 2000). Hochschild (in press) calls these conditions “nested inequalities.” The very students who need the most resources receive the fewest, and in the end, pay the biggest price in terms of school performance and nonschool outcomes (Darling-Hammond, 1990, 2002).

This demographic profile of urban students and communities highlights the challenges faced by urban high schools. Equally important, but less studied, are the cultural richness and strengths for teaching and learn-

ing of many urban communities (Delpit, 1995; Irvine, 1990). What is usually conceived of as a problem, such as a large population of English-language learners or new immigrants, is also an asset and a resource. Immigrants bring a wealth of opportunities for all students to be exposed directly to political issues, social and cultural issues, art, music, language, customs, religions, and trades that they might otherwise have to read about in textbooks. **The harsh realities and challenges cannot be ignored, but greater attention to the opportunities that urban centers provide for education is essential to improving the schools in those communities.** Engaging students who are growing up in areas of concentrated poverty will require exploiting the many strengths and opportunities available in most culturally diverse urban communities as well as addressing the challenges.

### DROPPING OUT: THE ULTIMATE IN DISENGAGEMENT

Dropping out of high school is for many students the last step in a long process through which students become disengaged from school. Indeed, many urban schools plan on substantial attrition in the number of courses they offer at the 11th and 12th grade levels (Fine, 1994). Graduation rates vary by ethnicity. Green (2001) calculated graduation rates<sup>3</sup> nationwide and for major school districts. At the national level, the graduation rate in 1998 was 74 percent. Differences were found among ethnic groups, with white students substantially more likely to graduate than Black and Latino students. Students in big city high schools were found to be substantially less likely to graduate from high school than their counterparts in suburban and rural schools. Both the overall dropout rate and the degree of disparity among ethnic groups varied across cities (see Table 1-2).

Although some cities have only a few problem high schools, in other cities they are the norm (Balfanz, 2001). Balfanz and Legters (2001) identified approximately 250 urban U.S. high schools in which fewer than half of the entering freshmen advance to the 12th grade with their classmates. These failing schools enroll approximately 60 percent of all students of color in the 35 large urban school districts that were examined.

High dropout rates are not inevitable in urban schools, however. Even

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<sup>3</sup>The graduation rate was calculated by dividing the number of regular diplomas awarded in 1998 by the number of 8th-grade students enrolled in 1993, multiplied by 100. Calculations of graduation rates for school districts were adjusted for changes in total and racial/ethnic subgroup enrollment in those districts in the 5-year period between 1993 and 1998. Green's calculations yield graduation rates that are much lower than NCES High School Completion Rates. This difference is largely explained by the inclusion of GED recipients in the NCES calculations. Other technical differences are discussed by Green (2001: pp. 8-9).

TABLE 1-2 Graduation Rates (percent) for Selected Urban School Districts, 1998

District	General Graduation Rate	Black Graduation Rate	Latino Graduation Rate	White Graduation Rate
New York City	54	42	45	80
Los Angeles USD	56	56	48	81
Chicago District 299	47	45	43	59
Philadelphia	70	65	53	91
Houston ISD	52	55	42	84
Baltimore City	54	55	NA	48
Cleveland	28	29	26	23
Detroit	57	57	49	43
Memphis	42	39	NA	50
Milwaukee	43	34	42	74
San Diego USD	62	54	43	79
Dallas ISD	52	60	39	72
U.S. Total	74	56	54	78

NOTE: Selected cities correspond to "Big city" classification in Table 1-1. NA means not available.

SOURCE: Green (2001).

controlling for a student's family background, the school a student attends has a strong effect on whether that student persists or drops out. Rumberger and Thomas (2000) estimated 10th-grade dropout rates from 1990 to 1992 for a sample of 247 urban and suburban high schools in 1990. Only about half of the variation in school dropout rates could be attributed to the background characteristics of the students who attended them. Another study found that only 20 percent of the variability in mean school attendance rates could be explained by the background characteristics of students (Bryk and Thum, 1989). Some of the remaining variance presumably was explained by qualities of the schools, such as school size, quality of the teachers, and the social and academic climate. **The variation in dropout rates among high schools that serve predominantly low-income students of color suggests that reforms could increase schools' holding power.**

## OUTCOMES AFTER HIGH SCHOOL

Dropping out has serious consequences for students. The manufacturing jobs with good wages that used to be available to unskilled workers are rapidly disappearing (Drucker, 1996). National Youth Employment Coalition (1999) estimates show that only about 15 percent of jobs available in 1999 could be filled by unskilled workers, compared to approximately 60 percent in 1950. Furthermore, the Coalition's estimates show that nearly

half of all young people ages 17 to 24 who have not completed high school are unemployed or hold jobs paying less than \$300 per week. The median annual earnings of men ages 25 to 34 who dropped out of high school plummeted from \$30,346 in 1970 to \$18,582 in 1999.<sup>4</sup> Although the average income of women ages 25 to 34 who dropped out of high school increased slightly between 1970 and 1999, the average annual income of female dropouts in 1999 was only \$10,174—far lower than that of male dropouts and not a living wage (National Center for Education Statistics, 2001b, p. 137).

During the same period, the average earnings for high school graduates without postsecondary education decreased by 27 percent for men, and rose only slightly for women. For both men and women, obtaining the kind of solid educational foundation during high school that would prepare one for postsecondary education has become indispensable for access to adequately remunerated employment.

Although finishing high school is indeed an asset for job security after graduation, even students who complete urban high schools in disadvantaged communities do not necessarily leave with the skills they need to be gainfully employed. In the 35 largest central cities in the country, more than half of entering high school students read at the sixth-grade level or below (Grosso de León, 2002), and many of these students make little progress while they are in high school (Campbell, Hombo, and Mazzeo, 2000; Dreeben and Gamoran, 1986; Education Trust, 1999; Guiton and Oakes, 1995). The problem is acute for low-income students of color. On average, African-American and Latino 17-year-olds taking the National Assessment of Educational Progress (NAEP) read about as well as white 13-year-olds. The findings in math are equally distressing. In 2000, 40 percent of 12th graders in central cities scored “below basic” on the NAEP (National Center for Education Statistics, 2001a), compared to 32 percent in urban fringe (suburban) and large towns, and 35 percent in rural and small towns. An important point to remember is that although the differences between urban and suburban 12th graders are not great, the picture is actually worse than these data suggest. Because the proportion of students who have dropped out by the 12th grade is much higher in urban than suburban schools, the urban 12th graders assessed in these data can be considered the high achievers in their class—“survivors” of the central city schools.

Attending a failing high school, and thereby being placed “at risk” of dropping out or being undereducated, also places youth at risk of involvement with the criminal justice system (Fine et al., 2001; Poe-Yamagata and

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<sup>4</sup>In constant 2000 dollars.

Jones, 2000). A full 54 percent of inmates in New York State facilities enter the system as dropouts, with neither a GED nor a high school diploma (Gangi, Schiraldi, and Ziedenberg, 1998; New York State Senate Democratic Task Force on Criminal Justice Reform, 2000). Using data from the National Longitudinal Survey of Youth and U.S. census microlevel data on state prisoners and local jail inmates, a recent study found evidence that high school students attending high school in a state in which educational resources are relatively low have a much higher probability of ending up in jails and prisons as adults (Arum and LaFree, submitted). High student/teacher ratios in high school also have been linked to higher adult incarceration rates (Arum and Beattie, 1999). Attending a poorly resourced high school or leaving high school without graduating does not necessarily lead youth to the prison door, but it is a well-worn path, particularly for low-income students of color.

This sad litany of statistics highlights the importance of the topic of this volume. For the sake of the youth involved and for the sake of society, we cannot ignore a pervasive problem with such serious consequences. The data we have just summarized should strengthen our resolve to do what is necessary to make high schools more inviting and engaging for their students.

### THE POTENTIAL OF SCHOOL REFORM

Nearly all cities have at least some high-performing high schools that serve economically disadvantaged students (Jerald, 2001). In 2001, The Education Trust (Jerald, 2001) published a list of more than 4,000 high-performing schools that serve primarily low-income students or students from historically disadvantaged racial/ethnic minority groups.<sup>5</sup> Although the great majority of these schools were at the elementary level, the presence of even a smattering of urban high schools on the list gives reason to hope that outcomes can be improved in critically underperforming urban high schools.

School reform efforts to date, however, have not improved outcomes for urban high school students on a large scale (National Research Council, 2002a; Puma et al., 1997). Evaluations of whole-school reform efforts over the past decade have been mixed at best (e.g., Berends, Chun, Schuyler,

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<sup>5</sup>“High-performing” schools were those serving students with reading and/or math performance in the top third among all schools in the state at the same grade level; schools “serving disadvantaged students” were those with at least 50 percent low-income students and at least 50 percent African-American and Hispanic students.

Stockly, and Briggs, 2002; Berends, Heilbrunn, McKelvey, and Sullivan, 1999).

Admittedly, a few success stories—often involving a highly select group of teachers and administrators and more resources than are available to most schools—do not give us total confidence that large-scale improvement is within our grasp. But now we also have promising models for high school reform (American Federation of Teachers, 1998; American Youth Policy Forum, 2000; George and McEwin, 1999; see Chapters 7 and 8, this volume) and a fair amount of knowledge about educational policies and practices that produce high levels of engagement and learning for even the most disadvantaged students (National Research Council, 2002a; Stringfield et al., 1997; see also Chapter 5). Although the powerful effects of students' demographic and social circumstances on their educational attainment and achievement should not be underestimated (Coleman et al., 1966; National Research Council, 2002c; National Center for Education Statistics, 2000a, 2001a), educational policies and support services can mitigate the effects of such circumstances (see Chapter 6, this volume). It is too soon to know whether these reform approaches can be successful on a large scale, but it is also too soon to become discouraged.

What would be required to increase students' motivation to succeed and their engagement in learning? After a thorough review of the evidence, the committee finds merit in the succinct answer provided by Newmann, Wehlage, and Lamborn (1992, p. 19): **"If students are to invest themselves in the forms of mastery required by schools, they must perceive the general enterprise of schooling as legitimate, deserving of their committed effort, and honoring them as respected members."** High schools must make students believe and feel that they are respected and that they belong, that they can learn what they are being required to learn, and that the lessons of school "make sense" within the context of their own lives. All this, of course, is much easier to prescribe than to do—especially in high-poverty, urban school communities.

We do not believe that a universal formula to accomplish these goals exists, or that one is likely to be discovered. But we do believe that the general principles that we have learned about motivation and engagement can be applied and adapted to improve the way that schools carry out their core activities, and thus the engagement and investment of their students in learning.

This volume summarizes evidence that can be used to guide efforts to improve adolescents' engagement in school. Because research at the high school level is sparse compared to that at the elementary and middle school levels, the committee was broad and flexible in its search. We examined tightly controlled experiments, program evaluations, surveys, and case studies. We refer occasionally to well-informed but still untested theories and



conjectures. But we make recommendations only when the accumulated evidence points us clearly in a particular direction, and we are careful to be clear about the source and nature of the evidence described to allow readers to draw their own conclusions.

Again and again the evidence reveals the complexity and interconnections among practices. Most of the reforms we suggest are necessary; none is sufficient. Furthermore, all of them need to be adapted to the particular circumstances of individual communities and schools.

### ORGANIZATION OF THE REPORT

In Chapter 2, we discuss general principles of achievement motivation and summarize research on the effects of educational practices on student motivation and engagement. The research reviewed in this chapter includes many experimental as well as classroom-based studies. Chapter 3 discusses how these principles of engagement can inform classroom teaching, focusing on literacy and mathematics. It also discusses the importance of supporting teacher learning and provides examples of strategies for promoting teacher collaboration and development. Moving from the classroom to the school, Chapter 4 focuses on the larger school context, especially the importance of an intense focus on learning within a supportive school community. Research on organizational features of schools, such as tracking, and on the student population and size of schools is also reviewed.

Chapter 5 moves beyond the school by discussing strategies for connecting schools better to their communities and to students' families. It also summarizes research on peer effects on high school student engagement, and suggests strategies for maximizing positive and minimizing negative peer effects. Creating connections with the community is discussed in Chapter 6 as one among several strategies for addressing nonacademic needs (e.g., health, mental health, family problems, pregnancy, and neighborhood violence) that can interfere with students' ability to engage in academic work. This chapter discusses what high schools can do to meet students' nonacademic needs without becoming overly distracted from their core academic mission.

The next two chapters move to the issue of scaling up the development of intellectually engaging high schools by reviewing current approaches to high school reform. Chapter 7 discusses theme-based schools, especially those that emphasize education for occupations as a strategy for engaging students' interest and giving them instruction and experiences in the community that strengthen their commitment to school. Chapter 8 reviews recent efforts at designing and implementing comprehensive reform approaches in urban high schools, and the challenges of scaling up.

The volume ends with Chapter 9, which presents conclusions and rec-

ommendations for aspects of high school policies and practices and for future research.

For each of the topics addressed in this volume, the discussion focuses on what the evidence suggests intellectually engaging high schools should look like and the factors that appear to support and undermine engaging educational policies and practices. Less is said about the *process* of school reform—how these practices get implemented on a large scale—although a chapter is devoted to the qualities of some of the major current reform models. **In brief, this volume focuses more on where we want to go than on how we get there.**

**Although the focus** is primarily on what can be done *in* high schools, the policies and practices described in this volume have important implications for many issues beyond its scope—including, for example, policies that affect who is attracted into the field of teaching, preservice teacher and leadership training and credentialing policies, state and federal testing policies, graduation requirements, and school funding and resource allocation. References are occasionally made to these policies, but they are not discussed in detail.

## 2

# The Nature and Conditions of Engagement

### WHAT IS ENGAGEMENT?<sup>1</sup>

Engagement in schoolwork involves both behaviors (e.g., persistence, effort, attention) and emotions (e.g., enthusiasm, interest, pride in success; Connell and Wellborn, 1991; Johnson, Crosnoe, and Elder, 2001; Newmann, 1992; Skinner and Belmont, 1993; Smerdon, 1999; Turner, Thorpe, and Meyer, 1998). It is important to consider **mental or cognitive behaviors** (attention, problem solving, using meta-cognitive strategies) **as well as observable behaviors** (active participation in class, completing work, seeking assistance when having difficulty, taking challenging classes) because relying only on observable behaviors as evidence of engagement can be deceiving. (Who hasn't had the experience of appearing engrossed in a lecture while writing a letter, making a grocery list, or daydreaming?) **Attention to mental behavior is important because only genuine cognitive engagement will result in learning.**

Students also can be socially engaged in school by participating in extracurricular activities, having friends at school, feeling a sense of loyalty

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<sup>1</sup>One might distinguish between "engagement" and "motivation"—with motivation as the precursor (the reason for being engaged) and engagement as the psychological experience or behavior. But in everyday contexts, people tend to use these terms interchangeably, presumably because motivation is inferred from observed emotions or behavior. Thus, the word "motivated" is just as likely as the word "engaged" to be used to describe someone who appears to be concentrating intently or to be actively involved in a learning activity.

to the school, and more generally by believing in the legitimacy of school. Promoting social engagement may have considerable value because it appears to motivate youth to attend and to stay in school (Johnson et al., 2001; Newmann, Wehlage, and Lamborn, 1992; Tinto, 1993; Wehlage, Rutter, Smith, Lesko, and Fernandez, 1989). This is why dropout prevention efforts often focus on keeping at-risk students socially attached to school (Finn and Rock, 1997).

Motivation to attend school is not sufficient, however, because students can participate actively and enjoy the social affairs of school without making meaningful academic progress. Although assessing proximal goals such as increasing attendance and reducing dropout rates can mark progress that reassures us that we are moving in the right direction, ultimately we need to achieve the more ambitious goal of promoting deep cognitive engagement that results in learning. Our focus is aptly captured in Newmann's (1992, p. 12) definition of engagement: "... the student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote."

The levels of both behavioral and emotional engagement can vary—from paying minimal attention (as in the lecture example) to actively processing information (e.g., making connections to previously learned material, critically analyzing new information); from being minimally interested to feeling excited and enthusiastic. Csikszentmihalyi (1975, 1988) describes the ultimate cognitive engagement as a state of "flow," in which people are so intensely attentive to the task at hand that they lose awareness of time and space. We are not proposing that all high school students be in a constant state of flow, but we have seen youth deeply and enthusiastically engaged in schoolwork and we believe this high standard should be our goal. The nature of the work may vary—from puzzling over a mathematical problem or reading a novel to trying to design an eye-catching Web page. Whatever the task, the goal is attentiveness and active problem solving that will promote learning, understanding, and the development of new skills.

Both the form and consequences of engagement are influenced by students' reasons for engagement (Ames, 1992; Linnenbrink and Pintrich, 2000; Meece, 1991; Nicholls, 1983). For example, students who attend class and complete assignments to avoid punishment or bad grades are less likely to become engaged beyond a superficial (just get it done) level, whereas students who complete assignments because the material captures their interest or because they experience a sense of pride in accomplishment are more likely to go beyond the minimal requirements and become actively and deeply engaged. This distinction between coerced and voluntary engagement is important, and we return to it later.

Just as there are many forms of engagement, there are many forms and

reasons for disengagement—from not paying attention and not completing homework to cutting classes and school. Behavioral problems are also evidence of disengagement and often a precursor to leaving school (or being asked to leave; Finn, 1989). The ultimate disengagement is to drop out of school. But because dropping out is usually preceded by less dramatic forms of disengagement (e.g., absenteeism, poor attitudes toward school), it is viewed as the final stage in a dynamic and cumulative process (Fine, 1991; Finn, 1989; Newmann et al., 1992; Wehlage et al., 1989).

### THE CONTEXT MATTERS

People often refer to motivation as a personal quality and describe some students as motivated and others as unmotivated. Teachers usually prefer to teach students who they perceive to be “self-motivated.” Indeed, students enter high school with well-developed beliefs, dispositions, and behavioral patterns. But these personal beliefs and dispositions developed partly as a consequence of the educational environments they experienced. There is considerable evidence for the power of the educational context, even as late as high school. If teachers could observe one of their own students in other classes or learning contexts, they would see substantial variation, making it difficult to characterize any one student as uniformly high or low on motivation. The same adolescent who is unable to pay attention in one classroom for more than a few minutes may persevere on demanding cognitive tasks in another class or in an after-school program. Within-student variation in engagement also is seen in class attendance rates, with students skipping some classes substantially more than others (Davidson, 1999).

The committee believes that all youth, even the most alienated, deserve a chance to regain the enthusiasm for learning that they most likely had as young children. We recognize that students vary in their abilities, disposition toward learning, and level of engagement when they enter high school, and that many students living in poverty endure serious hardships and have family responsibilities, such as providing income and sibling care, which make it difficult to actively participate in high school. School contexts, however, make a difference, and can diminish, if not eliminate, negative effects of poverty on student engagement. Our focus, therefore, is on what schools can do to engage (or reengage) adolescents in learning.

### PSYCHOLOGICAL MEDIATORS OF ENGAGEMENT

There is substantial empirical evidence on the educational conditions that promote intellectual engagement. The evidence suggests that the effect of the educational context on engagement is partially mediated by three sets

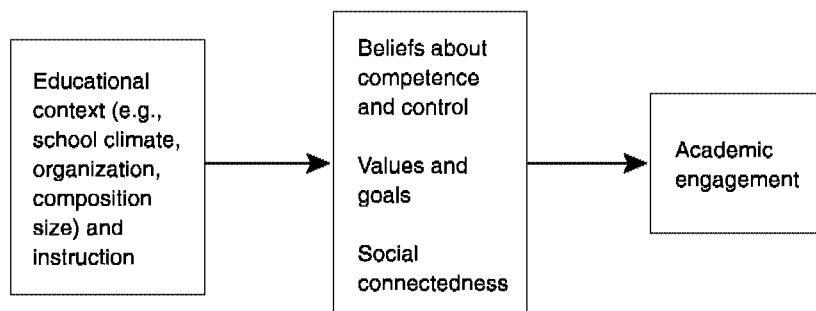


FIGURE 2-1 A theory on educational conditions that promote intellectual engagement.

of psychological variables—beliefs about competence and control, values and goals, and a sense of social connectedness. This theory is represented in Figure 2-1.

For example, in schools that meet teachers' needs for resources, professional development, and collegiality, teachers are more likely to be caring and effective. Such teachers are much more likely to give students a feeling of being cared about, and to promote students' confidence in their ability to succeed and the belief that academic success is important for future goals. These positive beliefs and feelings, in turn, should lead to high levels of effort and persistence. In contrast, teachers in large, impersonal schools with a climate of low standards are likely to give up on students and teach a watered-down curriculum that engenders in students doubts about their ability to succeed, the belief that academic work has little personal value, and generally negative feelings toward the teacher and school. These beliefs and feelings lead to low effort or ultimately to dropping out of school altogether.

The importance of these psychological variables in affecting student behavior is supported by studies of out-of-school programs that engage youth effectively. Successful programs address adolescents' needs for competence, control, and a sense of belonging (Catalano, Berglund, Ryan, Lonczak, and Hawkins, 1999; Eccles and Barber, 1999; Eccles and Templeton, 2001; Hawkins, Catalano, Kosterman, Abbott, and Hill, 1999; Kahne, Nagoaka et al., 2001; McLaughlin, 2000). We elaborate on these three sets of psychological mediators next, and later summarize what is known about how educational contexts affect them.

### Perceptions of Competence and Control (I Can)

Students will not exert effort in academic work if they are convinced they lack the capacity to succeed or have no control over outcomes

(Atkinson, 1964; Eccles et al., 1983; Skinner, Wellborn, and Connell, 1990; Skinner, Zimmer-Gembeck, and Connell, 1998).<sup>2</sup> They need to know what it takes to succeed and to believe they can succeed. Thus, the student who doesn't believe she can do the homework assigned will not attempt it; the student who believes he is incapable of passing the courses he needs to graduate will not exert much effort in class and may stop coming to school altogether.

The effects of feeling incompetent on the decision to leave school were demonstrated in a national longitudinal study that tracked the educational careers of more than 13,000 eighth graders. About 32 percent claimed they dropped out because they could not keep up with schoolwork (Berkold, Geis, and Kaufman, 1998, Table 6). Perceptions of incompetence may also contribute to the disproportionate number of low-income students and students of color who drop out of high school. In Ferguson's (2002) survey of more than 100,000 7th through 11th graders in 15 school districts, students from families with low socioeconomic status and students of color reported less understanding of teachers' lessons and comprehension of the material they read for school. Although they spent nearly as much time on homework as the other students in the same classes, they were much less likely to complete their homework.

One high school student interviewed by Davidson and Phelan (1999, p. 259), in their ethnographic study of urban high schools, succinctly describes the typical helpless reaction to feeling incompetent: "Mr. Yana, when he talks I just can't follow what he's saying. So I just give up."<sup>3</sup>

Students' beliefs about their academic competence may affect behavior in the United States more than in some other countries because Americans tend to have a concept of intelligence that is inherited rather than developed

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<sup>2</sup>Self-determination theory posits that feelings of competence and control are basic human needs and that people will not be engaged or otherwise function effectively in environments that do not meet these needs (Connell and Wellborn, 1991; Ryan and Deci, 2000a; Ryan and La Guardia, 2000). Perceptions of competence and control are also central in social psychology theories of learned helplessness (Diener and Dweck, 1978; see Dweck, 2000). Substantial bodies of research, both experimental and embedded in real classrooms, provide support for the importance of perceptions of competence and control for promoting academic engagement (reviewed in Stipek, 2002).

<sup>3</sup>This study of students' experiences of high school (Davidson and Phelan, 1999) followed 48 students in four urban high schools in two large California school districts over a 2-year period. Students were selected to represent the diversity of race/ethnicity and academic performance of ninth graders. Research methods included repeated interviews, surveys, class observations, and shadowing of a subsample of students. The study focused on conditions in classes and schools that affected students' engagement and success.

through effort (Dweck, 1999). Although Americans are not alone in embracing a notion of ability that is stable and that limits the effects of effort on performance, they do so more than people in the Asian countries that have been studied (Chen and Stevenson, 1995; Stevenson and Stigler, 1992). A student who believes that academic ability is fixed *and* that she is low in ability has little hope for success and therefore little reason to try.

The notion of fixed intelligence may be particularly problematic for students of color. Steele and his colleagues have shown repeatedly that high-achieving African-American students, as well as Latino students and women (in math) perform relatively poorly on tests when the tests are introduced as measures of their intellectual ability (e.g., Cokley, 2002; Gonzales, Blanton, and Williams, 2002; Steele and Aronson, 1995, 1998). Steele coined the term “stereotype threat” to explain the effect, suggesting that anxiety about not being able to contradict a stereotype (e.g., that African-Americans have relatively low intelligence or females are not good in math) undermines students’ performance.

Students’ judgments about their ability can be global or specific. The years of failure in school that many urban high school students have experienced can lead to general judgments of incompetence that bring about low expectations for success in any academic subject, and consequently pervasive low effort. Perceptions of ability usually vary from subject to subject (I’m good at math, but not in foreign languages), and they can certainly vary from one context to another, depending on factors discussed later.

Students’ perceptions of their competencies can be difficult to change because they interpret feedback and their own performance outcomes through this lens. A student who believes she is smart and expects to succeed is likely to attribute success on a test or assignment in part to her ability, and poor performance, when it occurs, to low effort or a poor strategy. This pattern of attribution reinforces an optimistic view of the future, even after a setback, because it implies that spending more time studying or changing the strategy will lead to improved performance. In contrast, a student who believes he is not smart is likely to attribute failure on a test to his low ability and success to luck or an easy test. Such attributions reinforce his expectation for continued failure. Because students make attributions that are consistent with existing beliefs, it is difficult to raise expectations in students who have had years of failure experiences in school and have come to believe they lack the capacity to succeed.

Even for students who have confidence in their academic ability, if they believe their achievements will not be recognized because the teachers are racist or prejudiced against them, or that rewards are dispensed on the basis of behavior they aren’t willing to engage in (e.g., ingratiating themselves with the teacher), they are not likely to put much effort into trying to do well in school. Studies have shown that low effort for some students also



can be traced to a failure to understand what it takes to succeed (Skinner et al., 1998). The rules of the game are not always made clear, or they are not consistently applied. Even when the rules are clear and consistent, some students need help to understand them.

Students' beliefs about their competencies and expectations for success have a direct effect on their intellectual engagement; they also lead to emotions that promote or interfere with engagement in schoolwork. Students who have negative views of their competence and low expectations for success are more anxious in learning contexts and fearful of revealing their ignorance (Abu-Hilal, 2000; Bandalos, Yates, and Thorndike-Christ, 1995; Harter, 1992; see Hembree, 1988). They anticipate embarrassment and humiliation, and are thus reluctant to ask questions even when they are confused (Newman and Goldin, 1990; Ryan and Pintrich, 1997). Sometimes they exert less effort on tasks to provide an alternative explanation to low ability if they fail ("I could have done it if I tried, but I didn't feel like doing it"; Covington, Spratt, and Omelich, 1980).

Self-confidence and expectations for success also affect academic interests and values. In one study of a diverse group of middle school students, changes in students' perceptions of their competence in a class over the course of a semester was a powerful predictor of changes in their interest in the course topic (whereas changes in interest did not predict changes in perceptions of competence; MacIver, Stipek, and Daniels, 1991). Similarly, Jacobs, Lanza, Osgood, Eccles, and Wigfield (2002) found, in a longitudinal study of children from grades 1 through 12 that declines in competence beliefs accounted for much of the age-related decline in valuing academic work. Students enjoy academic tasks more and learn more when they feel competent (Gottfried, 1990; Harter, 1992) and when they expect success (Bandura, 1993, 1997; Pajares, 1996; Schunk, 1995). Feelings of competence give them a feeling of personal control, which has been shown to be critical for enjoyment, effort, and actual learning (deCharms, 1976, 1984; Deci and Ryan, 1985; Ryan and Deci, 2000a).

### Values and Goals (I Want to)

Even if students believe they can succeed in school, they won't exert effort unless they see some reason to do so. Adolescents can have many reasons for engaging in academic work, and typically there is a complex set of reasons for engaging in any one task. For example, a student may take real pleasure in learning, or she may have internalized the values of learning and getting a good education. Some reasons for doing academic work are weakly, if at all, connected to learning and academic achievement. For example, a student may not enjoy schoolwork or value education, but may see high school graduation as a means to achieving a long-term goal, such

as getting a good job. Another student may desire an extrinsic reward (e.g., being able to play football) that has been made contingent on some form of engagement or academic outcome, or he may want to avoid punishment or disapproval for poor performance.

Reasons for being engaged vary in the degree to which they come from within the self (giving students a feeling of self-determination—that they are working because they *want* to) in comparison to being imposed externally (giving them a feeling of being coerced—that they are working because they *have* to). The nature of students' reasons, especially the degree to which they feel self-determining and autonomous versus coerced and controlled, has important implications for the quality of their effort and their learning. We will elaborate below on the implications of various reasons high school students might have to be engaged in academic work.

### **Intrinsic Interest**

Ideally, students take pleasure in learning. They engage in academic work because they are interested in the topic and take pride in their achievements. The advantages of intrinsic motivation have been shown in many studies, although not specifically involving urban high school youth. For example, researchers have found that students who are intrinsically interested in an activity are more likely than students who are not intrinsically interested to seek challenging tasks (Pittman, Emery, and Boggiano, 1982), think more creatively (Amabile and Hennessey, 1992), exert effort (Downey and Ainsworth-Darnell, 2002; Miserandino, 1996), and learn at a conceptual level (Ryan, Connell, and Plant, 1990).

### **Internalized Values**

Some students are diligent whether or not they enjoy a particular course or activity because they have adopted values related to schooling. They believe it is important to work hard in school and get an education—not to achieve a particular outcome or reward, but because it's the right thing to do. The internalization of academic values has not been well studied, but there is evidence that students who believe in the importance of school are more productively engaged (e.g., attend more regularly, complete homework, pay better attention) than students who do not value education (Taylor, Casten, Flickinger, Roberts, and Fulmore, 1994).

Academic values are assumed to develop just like any other values. When children observe significant others expressing and modeling particular values, such as trying hard in school, and when they are recognized and supported for behavior consistent with those values, they adopt the values as their own and behave in ways consistent with them (Connell and Well-

born, 1991; Downey and Ainsworth-Darnell, 2002; Ryan, Connell, and Grolnick, 1992; Ryan and Deci, 2000a; Ryan and La Guardia, 1999). The more students have internalized positive education values, the more autonomous they feel, and the more they voluntarily persist in the face of challenge and in the absence of immediate rewards.

Negative values presumably are internalized through the same process. Students who spend their time with adults and peers who devalue school and who are not encouraged and reinforced for their efforts on schoolwork may develop antiachievement values. To them, it is just as reasonable not to exert effort (or at least appear not to be exerting effort) as it is for other students to be diligent (see Chapter 3, this volume).

A few theorists have argued that students of color, especially African-American youth, often develop antiacademic values because they do not see any tangible return to schooling (Fordham, 1988; Ogbu, 1992, 1997; Osborne, 1995, 1997). Ogbu and others propose that African-American youth do not expect their own success in school to be rewarded with jobs and higher incomes. According to the theory, the youth buffer themselves psychologically from the failure they believe is inevitable in an unfair society that is biased against them by disidentifying with academic achievement values and by developing a strong identity with their own race that is "oppositional" to the dominant culture. Although there are case studies that are consistent with Ogbu's notion of disidentification, large-scale surveys, summarized in Chapter 5 in this volume, do not support these claims. Antiachievement subcultures may exist, but the evidence does not suggest they are pervasive among students of color.

However, there is evidence that connects beliefs about the potential returns to education directly to academic engagement. Students' perceptions of social injustice and discrimination have been associated with low engagement and persistence in school, and perceptions of opportunities and connections between effort in school and success in the workplace have been associated with high engagement and persistence (Fine, 1991; Mickelson, 1990; Taylor et al., 1994).

### **Extrinsic Goals and Incentives**

Students also may become engaged in schoolwork because they see courses and activities in school as having some utility value. Succeeding in them is a means to achieve goals that might not be related to the course or activity itself. The most prominent extrinsic rewards in school are good grades and social recognition. Ideally, such forms of extrinsic motivators would not be the only or even the most salient reasons for students to exert effort in school. Realistically, however, external incentives are powerful motivators if they are believed to be genuinely available. Because a substan-

tial proportion of students in urban high schools serving economically disadvantaged youth have never received high grades or recognition for the academic accomplishments, the challenge is to convince them that these rewards are within their reach and have value.

Long-term goals can also be important. For example, understanding chemistry and biology would have considerable utility value for a student aspiring to be a doctor, but may be seen as having little value to a student who has no expectation for any higher education. Analyses of the National Education Longitudinal Study (NELS) data conducted by Downey and Ainsworth-Darnell (2002) provide correlational evidence for the importance of believing that school is a means to long-term goals. Tenth-grade students of all ethnic groups who agreed with the statement "Education is important to getting a job later on" were rated by teachers as less disruptive and exerting more effort, and reported that they spent relatively more time on homework. Educational and occupational aspirations also predict mobility and dropping out, even controlling for the effects of achievement.

Utility value related to academic work usually requires some future time perspective, and an understanding of the links between immediate tasks and long-term goals (Husman and Lens, 1999). It also requires a belief that the goals are linked to school, and that they are genuinely obtainable.

Research on urban high school youth suggests that they are often poorly informed about the utility value of particular high school courses and activities for college entry (Davidson, 1996; Yowell, 1999). For many students, the problem is not a lack of aspiration or even expectation, but a lack of knowledge about what is required to achieve their educational and professional goals (see Chapter 7, this volume).

Sometimes students will work if something they desire is made contingent on being productively engaged, or if some undesirable outcome will occur if they do not do the work. Policies such as making scholarships and a driver's license contingent on staying in school, making participation in team sports contingent on maintaining a C average, or giving gift certificates to fast food restaurants for every book read are based on the assumption that behavior can be influenced by extrinsic incentives.

In the past decade, many programs have been created that offer college scholarships to motivate students to work hard and complete high school. For example, the state of Georgia's HOPE program offers scholarships for students who complete high school with at least a B average and enroll at an eligible Georgia public college. Students must also maintain a B average while in college to retain the scholarship. Florida similarly offers "Bright Futures" scholarships. "I Have a Dream," "Gear-Up," and "Project GRAD" offer scholarships as well as additional supports, such as mentoring, tutoring, enrichment programs, and college visits. The effects of the

scholarship incentive on student engagement are usually difficult to determine from available evidence because records are often poor, there is no control group to which students in the program can be compared, or the effect of the scholarship cannot be untangled from the effects of other aspects of the program. One well-regarded evaluation of Georgia's HOPE Scholarship program (Dynarski, 2000) cautions that modeling a national scholarship program on the Georgia incentive will likely widen the already large racial and socioeconomic-level gaps in college attendance. Dynarski's study suggests that the HOPE Scholarship program has successfully increased the college attendance rates in Georgia, but at the expense of widening the gap between Blacks and whites as well as between low- and high-income families (Dynarski, 2000, also see Cornwell and Mustard, 2002). The danger of higher income families taking advantage of a system without income restrictions, as well as the observed pattern of students reducing course loads in order to maintain the necessary B average, is an important caveat to consider (Glenn, 2003).

Extrinsic rewards for intellectual engagement may be effective, and for some students, they may be the only effective strategy, at least initially. But there is considerable evidence to suggest that extrinsic rewards should be used cautiously and no more than necessary. The effects are often superficial—they promote compliance (showing up, getting the work done), but not deep cognitive engagement. For example, researchers have found that students who are motivated primarily by the anticipation of rewards do not exert effort when tasks are difficult, and they do not take on challenging new work or put forth effort when they do not expect a reward (see Lepper and Henderlong, 2000; Ryan and Deci, 2000b; Stipek, 2002, for reviews). The short-term positive effects of extrinsic rewards also can be undone by negative long-term consequences on attitudes toward school and toward learning (it's just to achieve the reward). Furthermore, when students are motivated by a desire to achieve extrinsic rewards, they do not feel autonomous, as though they are doing work because they want to; the feeling of being controlled undermines deep engagement on challenging tasks (deCharms, 1976, 1984; Deci and Ryan, 1985; Ryan and Deci, 2000a).

Reliance on "carrot and stick" approaches can be particularly problematic for secondary students, who, for many reasons, do not value the rewards typically available in schools, and may want to appear independent rather than compliant. The promise of good grades and the threat of bad grades will have no impact at all on the behavior of students who don't care about grades. A student who is a member of a peer group that devalues or ridicules high academic performance may consider a good grade or public recognition to be a punishment, not a reward. Students who have experienced years of failure are likely to conclude that no amount of effort will lead to such a reward. In brief, extrinsic incentives that are genuinely achiev-

able are often necessary. However, they should not be the only strategy for motivating students.

### **Social Connectedness (I Belong)**

Sociologists have long promoted the value of “communality” and collective identity in the workplace (Blauner, 1964). This notion also applies to schools. Students who feel disrespected or socially isolated are not likely to function effectively at school, and they may simply leave to seek more psychologically comfortable environments. Although feeling psychologically connected to school is not sufficient for meaningful engagement in academic work, it is probably necessary for many students. Bryk, Lee, and Smith (1990) speculate that the importance of positive interpersonal relationships is amplified by modern life, in which traditional sources of personal support, such as community, religious institutions, and extended family, are often unavailable.

When asked about factors that affected their ability to connect with school and learning, the urban high school students interviewed by Davidson and Phelan (1999) focused on caring adults. Half of the students referred to the importance of meaningful relationships with adults and teachers who showed an interest in them as individuals (see also Davidson, 1996, 1999). In the Public Agenda (1997) phone survey, 64 percent of students claimed that they would learn a lot more if their teachers “personally cared about his students as people.” (Only 30 percent claimed that most of their teachers did care.)

Students who quit school before graduation frequently report that they dropped out in part because “nobody cared.” In the national longitudinal study that tracked the educational careers of students who were 8th graders in 1988, 23 percent of the students who dropped out cited feeling that they did not belong as a reason (Berkold et al., 1998, Table 6).

The research on belonging in educational contexts is relatively new, and the direction of causality has not been definitively established. Nevertheless, many correlational studies have shown that students who report caring and supportive interpersonal relationships in school have more positive academic attitudes and values and are more satisfied with school (Baker, 1999; Battistich, Solomon, Kim, Watson, and Schaps, 1995; Ryan and Deci, 2000a; Shouse, 1996a; Skinner and Belmont, 1993; Wasley et al., 2000; Yowell, 1999). They are also more engaged in academic work (Connell and Wellborn, 1991) and they attend school more and learn more (Bryk and Driscoll, 1988; Bryk, Lee, and Holland, 1993).

Some experimental studies with college students by Baumeister and colleagues (Baumeister, Twenge, and Nuss, 2002; Twenge, Catanese, and Baumeister, 2002) support the hypothesis that feeling a sense of belonging

is crucial to cognitive engagement. Their work shows strong negative effects of social exclusion on cognitive performance (Baumeister et al., 2002) and self-regulation (Twenge et al., 2002). Study participants who were made to feel socially excluded or rejected showed a decline in cognitive test performance (on IQ tests and the GRE), as well as an increase in self-defeating behavior like taking irrational risks and procrastinating. Such findings are powerful because of the studies' experimental designs, and may well apply to individuals in educational settings as well as in controlled conditions.

Ferguson (2002) found in his large survey of high school students that African-Americans were particularly responsive to teachers who showed that they cared about their learning. When asked why they worked hard when they did, 47 percent checked the option, "my teachers encourage me to work hard." The proportion of African-American students who referred to teacher encouragement was notably higher than for other ethnic groups and higher than the proportion of African-American students who claimed that when they worked hard, it was because the teacher demanded it (15 percent).

In adolescence feeling connected and accepted by peers in school may be as important as feeling connected to teachers. Research consistently shows the critical role that positive, supportive peer relationships play in adolescents' mental health and well-being (e.g., Berndt, 1996; Parker, Rubin, Price, and DeRosier, 1995). Although studies have not specifically connected peer relationships to engagement in school, inasmuch as they promote positive mental health, they might be expected to support students' ability to be constructively engaged in learning. Close relationships to other students is also likely to promote attachment to school.

A sense of belonging involves an identification with the values and goals of schooling as well as a feeling of connectedness to others in the school, both students and teachers. Thus students whose values and culture conflict with those of the institution, or who see schoolwork as meaningless, may also feel that they don't belong. Case studies suggest that a sense of belonging might be affected by the combination of a student's own ethnic identity and the ethnicity of the students in the school and their classes. Davidson's (1996) intensive study of 55 students in urban schools provides many examples of the ways in which students of color silenced themselves and limited their participation because they didn't feel like they belonged. As one African-American student explained:

I can never ask a question [in advanced math] cause everyone is so smart in that class. . . . In biology, I could just ask questions with no pressure. I feel better when there's more diversity because there's different people around you. You're not alone, you know. Only one who's not the same as all the rest (p. 39).

### Summary

To summarize, the effects of high school contexts on student engagement are partly mediated through their effects on psychological variables—especially beliefs about competencies and control, values and goals, and social connectedness. Efforts to enhance student engagement, therefore, need to consider the effects of policies and practices on these psychological variables. The next section summarizes research that examines the conditions that promote positive beliefs, values, and a feeling of belonging.

## ENGAGING LEARNING CONTEXTS

Research on both school and out-of-school contexts provides substantial empirical evidence that can be used to guide efforts to improve adolescents' academic engagement. We describe here what can be gleaned from the achievement motivation literature about the qualities of engaging learning contexts. We limit our summary to principles of motivation that have strong empirical support and broad applicability, although many of the studies cited do not include urban youth. The research evidence that we summarize briefly is reviewed extensively in Brophy (1998), Pintrich and Schunk (1996), and Stipek (2002).

### Promoting Perceptions of Competence and Control

A fair amount is known about practices that promote perceptions of competence and control over achievement outcomes. Tasks that are challenging but achievable are essential. Students do not develop a sense of competence when they are given easy work, and they certainly do not develop confidence in their abilities by doing work that is too difficult for them. Adjusting tasks to students' skill levels is also important because learning is an active process, and learners' preexisting knowledge, skills, beliefs, and concepts influence how they make sense of new information (National Research Council, 1999). If preexisting levels of skills and understanding are not considered, students will transform and distort new information according to what they already understand.

This principle of "optimal challenge" may be the most important—as well as the most commonly violated. It is violated because it requires considerable skill and is difficult to implement in a classroom of students with varying skill levels. Teaching that produces meaningful gains in skills and understandings requires assessing students' understanding frequently and in different ways, and building on students' incomplete or naïve understandings and false beliefs.

Related to optimally challenging tasks is the second essential ingredient



of a context that supports students' self-confidence and the belief that their efforts will lead to success—high expectations (Eccles et al., 1983; Wigfield and Harold, 1992; see Chapter 5, this volume). Many studies show that schools in which students achieve high levels of performance have high expectations for student learning and hold students to high standards (Baker, Terry, Bridger, and Winsor, 1997; Evans, 1997; Lambert and McCombs, 1998; Lee et al., 1993; Lee and Smith, 1999; Marks, Doane, and Secada, in press; Phillips, 1997). Phillips (1997) found that the level of “academic press” (offering demanding curricula and having high expectations for learning, without pressuring performance or undermining autonomy) was a more powerful predictor of student learning than was the degree to which there was a positive, democratic social environment. Researchers have concluded that a focus on learning partly explains why students attending Catholic schools perform better academically, even when adjustments are made for population differences (Bryk et al., 1993). A student in the Davidson and Phelan (1999, p. 249) study of urban youth referred to academic press in his description of a teacher who made him feel connected: “he pushes you to think about college math, as a freshman, like last year he used to push me into taking math.” He continues, “like he’ll call [on the telephone] . . . ‘Have you done your work?’”

Expectations can be conveyed directly (e.g., “I know you can do it”). But studies suggest that subtle and even counterintuitive responses to students' achievement efforts can affect their achievement-related beliefs. There is evidence, for example, that under some conditions students interpret pity or sympathy following poor performance as an indication that the teacher believes they did the best they could do and are not capable of doing better (Graham, 1984). They reason that the teacher would be angry if he thought they hadn't tried and were capable of a better performance.

In a study by Wentzel (2002), students' perceptions of their teachers' expectations for their learning was a strong predictor of how responsibly they engaged in their academic work, how helpful they were to classmates, how interested they were in class, and how much they desired to learn. Rutter, Maughan, Mortimore, Ouston, and Smith (1979) also provide correlational evidence for the importance of clarity in expectations. They found that schools with a high degree of consensus on goals and enforcement of rules—where there was little ambiguity about expectations—had the best attendance and student participation and the lowest levels of delinquency.

Most high school students do not feel particularly pressured to do well in school. A recent national representative survey of more than 2,000 students asked them: “Overall how much do teachers encourage you to do your best?” (MetLife, 2001). Students' choice of “very much” fell from 50 percent in the 7th and 8th grades to 36 percent in the 11th and 12th grades. Pressure was especially lacking at all grades for students from low-income

families. Whereas 47 percent of the more affluent students claimed that their teachers really encouraged them to do their best, only 30 percent of students from low-income families made this claim. Low-income students were also more likely to claim that their teachers expected their schoolwork to be “just OK” (18 percent) than were high-income students (0.8 percent).

Surveys also show that high school students want to be challenged. In a telephone survey of 1,000 randomly selected public high school students, 66 percent claimed that they would learn a lot more if their teachers would “challenge students to constantly do better and learn more.” Only 33 percent reported that their teachers did this (Public Agenda, 1997). An especially high proportion of African-American students (79 percent compared to 63 percent of white students) claimed they would learn more if their teachers challenged them more.

In case studies, low-income students of color report a disproportionate number of negative comments about their ability, which, as one African-American student explains, take a toll: “If somebody keeps telling you you’re gonna be nobody, you’re going to take that in and you’re going to say ‘Well damn, I’m going to be nobody. Look at my grades, they’re right’ ” (Davidson, 1999, p. 351). Another urban student interviewed by Davidson (1999, p. 351) gives an example of a comment made by a teacher passing out paper for students to do a collage: “I don’t think you’ll do it, but I’ll give it to you anyway.”

Many researchers have documented low expectations and standards in schools serving low-income children (Hallinger, Bickman, and Davis, 1996; Hallinger and Murphy, 1986; Leithwood, Begley, and Cousins, 1990), and low expectations prevail for students placed in lower tracks (Oakes, 1985, 1990). Yet when these students are asked about teachers who are motivating, they often describe teachers who hold them to high standards and provide the support to achieve those standards (“he just sticks with you all the way till you get something right”; Davidson and Phelan, 1999, p. 249), and they complain about teachers who don’t seem to care whether they learn. One urban high school student laments: “I give up on my test or homework because I don’t understand it. When the teacher comes around to collect it, I put it in my book bag and no one notices that I didn’t hand it in. They don’t notice” (Cushman, 2002, p. 8).

Students of color may be at particular risk of experiencing low expectations. More than a third of the students of color interviewed by Davidson (1996) perceived differential expectations from teachers that were based on students’ race. A Filipino-American student gives the following example: “If she’s talking about a bad neighborhood, she’ll say the Black kids. The whites are all in the good neighborhoods and stuff” (p. 41). A Mexican-American student describes the behavior of another teacher: “When he talks about people that will end up on the streets . . . and then he turns and

looks at all the Mexicans. I want to get up and tell him off or just walk out” (p. 41).

McLaughlin and Talbert (2001) documented teachers' behavior in schools in which the population of students had shifted from relatively high-achieving, middle-class students to less skilled, low-income students. They found that many teachers lowered their expectations and watered down instruction to the extent that the students had no hope of ever catching up. Equally destructive was the response of a second group of teachers, who continued to teach the regular curriculum without any adjustment, making it inaccessible to students with low skills, but then complaining about their low skills and motivation. A third group of teachers showed an effective response; they built on students' current skills and level of understanding while pushing them hard to master the high school curriculum.

Many students who enter high school with very low skills need extra educational resources such as tutoring and summer- or after-school programs to develop their skills and confidence. Although all students should be able to master the basic high school curriculum, some require substantially more assistance and time. Without additional support, they will have difficulty making progress. Consequently, they will develop (or maintain) feelings of incompetence, and they will not want to engage in intellectual work. The challenge is to provide these extra supports in a way that does not feel punitive and interfere with opportunities to engage in other activities, such as sports and jobs.

A third critical area related to students' perceptions of competence and control is evaluation. Evaluation is pervasive in high school and affects each student every day. The potential impact of evaluation on perceptions of competence and future expectations is enormous. The research evidence indicates that evaluation should be based on clearly defined criteria, improvement, and achieving goals or standards, and it should provide specific and useful feedback that can guide future efforts (see Stipek, 2002, for a review). In addition, evaluation practices should be varied to give students opportunities to demonstrate their competencies in different ways.

### Promoting Academic Values and Goals

Research has not examined the qualities of educational context that promote a commitment to education, although studies of the development of other values provide clues. The factors that appear most likely to contribute to student beliefs about the value of education are (1) being reinforced for behaviors reflecting educational values, (2) having role models who express their own commitment to education, and (3) being encouraged by others, including teachers, counselors, and peers, to seek and take advantage of educational opportunities.

In contrast to general values related to education, both experimental and classroom studies tell us a great deal about the specific practices that enhance students' desire to be engaged in intellectual work. Choice is a critical ingredient. Students are more likely to want to do schoolwork when they have some choice in the courses they take, in the material they study, and in the strategies they use to complete tasks (Cordova and Lepper, 1996; Deci, Nezlek, and Sheinman, 1981; Eccles, Early, Fraser, Belansky, and McCarthy, 1997; Guthrie, Wigfield, and VonSecker, 2000; Iyengar and Lepper, 1999; see Ryan and La Guardia, 1999). These findings are consistent with sociological theory and organizational studies suggesting that alienation, not engagement, is produced by work situations that create feelings of powerlessness (see Blauner, 1964).

A large body of primarily experimental studies demonstrates that emphasis on rewards and other extrinsic reasons for engaging in an activity can undermine intrinsic interest in the activity (see reviews by Cameron and Pierce, 1994; Deci and Ryan, 1985; Kohn, 1993; Ryan and Deci, 2000b; Tang and Hall, 1995). For example, reminding students that they need to complete assignments because a passing grade depends on it, rather than pointing out what they will learn, focuses their attention on the extrinsic reasons for doing schoolwork and thus promotes the feeling that they are doing it because they have to, not because they want to do it. Students need to know the criteria for evaluation and the consequences of their behavior, and some students may need extrinsic incentives to get started. But constant reminders of the extrinsic consequences of their behavior are usually unnecessary and are likely to undermine high levels of cognitive engagement.

Other practices that undermine the desire to engage in activities were articulated by some of the urban youth interviewed by Davidson and Phelan (1999). The students in their study expressed feelings of alienation associated with authoritarian discipline policies, policies that limited their academic options or ability to make decisions, rigid and distrustful teachers, and teachers who did not encourage students to express their perspectives and opinions in class. One student suggested that authoritarian policies promoted rebellion, not academic engagement: "This year, [with] our new administrator guys it's like we're in a prison or something . . . as a result, I think people are more rebellious. Because he won't trust you with anything" (Davidson, 1996, p. 46).

Giving students some choice and autonomy is not the same as eliminating structure. To the contrary, students need to have limits, and choices need to be given in the context of clear expectations. The importance of structuring students' learning experiences was made clear by the urban ninth graders interviewed by Yowell (1999). Nearly all of the mostly Latino students in her study expected to go to college. Despite these high aspirations, they reported that they often skipped school and did not do their

homework. Ironically, they blamed their behavior in part on their teachers. Referring back longingly to elementary school, one student explained, “teachers made sure we finished our homework and made sure we turned it in” (p. 18). Some students complained that in contrast to elementary school, their high school teachers said little when they didn’t do their work, and rarely informed their parents of problem behavior. Parents usually did not hear of their truancy, for example, until they had missed more than 20 classes and it was too late to make up the work. Ninth graders may require more attention than students in the later grades of high school, but many older students also need assistance and support in completing their work. Taken together, research evidence suggests the value of choice, but within a structure. It does not support either a free-for-all or a military approach.

Research also provides evidence on what makes learning experiences more enjoyable, thus motivating to students. Making school more interesting and fun may be a powerful strategy for engaging students—or at least increasing attendance. In the most recent MetLife (2002) survey of 7th through 12th graders, the most frequent explanation for both skipping school (37 percent) and dropping out of school (76 percent) was that “school was boring.” A summary follows of the particular qualities of activities that engage students’ interest and enthusiasm (see also Stipek, 2002). It is noteworthy, and probably not coincidental, that these same qualities have been shown by cognitive scientists to promote deep, conceptual understanding (see National Research Council, 1999).

### Emphasis on High-Order Thinking

Research on learning shows that students become cognitively engaged when they are asked to wrestle with new concepts, when they are pushed to understand—for example, by being required to explain their reasoning, defend their conclusions, or explore alternative strategies and solutions (National Research Council, 1999). When asked to provide reasons for being unengaged in schoolwork, many of the economically disadvantaged students in the Davidson and Phelan (1999) study complained that they had little opportunity to convey or address conceptual misunderstandings. After describing a math class in these terms, one urban student added, “I was smart in math until I got her and I got stupid” (Davidson, 1999, p. 355). In contrast, when describing a particularly motivating teacher, another student explained: “You ask him a question, and he . . . gives you the clues, and then you have to figure it out yourself. . . . I like that, because he makes you think” (Phelan, Davidson, and Yu, 1998, p. 136).

Challenging work, mentioned earlier as being important for promoting feelings of competence, also has been shown to promote greater interest and enjoyment. Research evidence contradicts a common stereotype of

urban youth—that they prefer easy work that requires little effort. In a study by Turner et al. (1998), for example, students used a daily log to rate each task they were given on how skillful they were in completing the task, how challenging the task was, and how they felt about the task. They reported the highest levels of engagement on tasks for which they rated both their skills and challenge as high. When level of challenge was rated as lower than their skills, students were not very intrinsically motivated or engaged. Accountability and a focus on learning were also important. In observations of the students' classes, the researchers found that teachers in classes rated as high in challenge and high in intrinsic motivation were more likely to hold students accountable for understanding.

In another study, high school students rated classes that challenged them as being more engaging (Newmann, 1992). Furthermore, observers' ratings of the level of challenge and the degree to which high-order thinking was required in classes were strongly correlated to their ratings of student engagement. When students were asked to identify, independently, the most interesting and worthwhile class they took in the past year and the class that made them "think the hardest," nearly 60 percent named the same class. The association was especially strong for students from low-income families.

### Active Participation

Students enjoy and exert more effort when they are active participants than when they are passive. Over the long term, they are more likely to engage when they are asked to conduct rather than read about experiments; to participate in debate and role playing rather than listen to a lecture; or to create a model and complete projects rather than answer questions about how a process works (Davidson, 1999; Guthrie et al., 2000; Mitchell, 1993). In the Public Agenda (1997) telephone survey of 1,000 high school students, 67 percent claimed that they would learn a lot more if their teachers used "hands-on projects and class discussion," compared to 14 percent who claimed they would learn more if their teachers lectured.

When students in Boaler's (2002a) study of British students who experienced different approaches to mathematics instruction were asked what they like about mathematics, the most popular response given was "activities." They were also able to explain why they enjoyed activities more than the textbook and workbooks they often used. A prominent theme was being able to work autonomously and take pride in their achievement: "you learn more by doing something on your own" (p. 38); "you feel more proud of the projects when you done them yourself. If it's just working through the book, you can't feel proud" (p. 38); "because you had to work out for yourself what was going on, you had to use your own ideas" (p. 68).

### Variety

In explaining her distaste for a particular English class, a student in the Davidson and Phelan (1999) study explained:

. . . we read, read, read and that's all we do. It's like every week it's the same routine. On Mondays you come in and do your vocab—definitions. And then Tuesdays you read the story, Wednesday keep on reading the story, Thursday answer the questions, and Friday you do a test. . . . It's boring to do the same thing every day . . . we should have like more discussions of the stories that we read and have group work. That would make the class more interesting. Plus that each week have a different class project (p. 258).

Her attendance was directly affected. She had 62 absences in this course, compared to 28 in her science class, which involved more active learning.

Students in Boaler's (2002a) study also complained about instruction that was repetitious. As one student explained: "The books are a bit boring, the chapters . . . repeat the same questions over and over again, like when they explain something they do the question and then you have to do about 20 of them at the same time" (Boaler, 2002a, p. 37). When another student was asked how he would change math lessons in his class, he said he would: ". . . have one lesson a week on the booklets, one on activities, one where you get a problem and you have to solve it—just a variety" (p. 37).

### Collaborative Activities

Most students enjoy working together (Davidson, 1999; Johnson and Johnson, 1985; Mitchell, 1993). Individual accountability is important, but students' engagement in the learning process can be enhanced by allowing them to work in pairs or small groups on activities that require sharing and meaningful interactions. Students are also more receptive to challenging assignments when they can put their heads together rather than work in isolation. Collaborative work also can help students develop skills in cooperation. Furthermore, it helps create a community of learners who have responsibility for each other's learning, rather than a competitive environment, which is alienating to many students, particularly those who do not perform as well as their classmates (Cohen, 1994).

One challenge to successfully implementing a collaborative learning activity is the inherent status inequities that arise in the social system of the classroom. Those students who are seen as having high academic status typically do more talking and often control the group tasks in a collaborative learning activity, while the low-status students will have a hard time being heard or persuading the other members of the group to even listen to

them (Cohen, 1997). Cohen and Lotan (1997) address these “status conditions” of students in the underlying principles of “complex instruction”—a model of pedagogy that involves students actively and equitably in meaningful, challenging group work. These principles include: (1) constructing tasks that are open ended; (2) incorporating multiple intellectual abilities; (3) bolstering group interdependence and enforcing individual accountability; and (4) connecting activities through central concepts and big ideas of the disciplines (Lotan, 1997, p. 107). In this model of collaborative learning, teachers delineate the multiple intellectual abilities a group of students must bring to each task, emphasizing that each student will have his or her own strength to contribute to the group process. Another model for collaboration that increases the chance of equal contributions is the “Jigsaw Classroom,” which has been shown to improve the learning, engagement, and enjoyment of low-performing students at all grade levels (Aronson, Stephan, Sikes, Blaney, and Snapp, 1978). The model creates interdependency among students in a group by giving each member a critical element of the task.

### Meaningful Connections to Students’ Culture and Lives Outside School

Students enjoy learning more, and they learn better, when topics are personally interesting and related to their lives (Meece, 1991). A high school English teacher gives the following example of connecting the curriculum to students’ experiences: “when we began *To Kill a Mockingbird*, I asked them to remember their childhood and was there anyone on their block they were afraid of” (McLaughlin and Talbert, 2001, p. 28). A math teacher describes another meaningful connection: “Graphing skills for example. I make up a bunch of crazy data like compare the profits of Metallica versus Billy Idol. . . . And I get a 90 percent return rate on homework” (p. 29).

Giving choices increases the likelihood that students will work on something of personal interest. Another strategy for making schoolwork more relevant and interesting is to invite students to express opinions. Describing a class that she found particularly engaging, one urban high school student explained, “Like if you read something and everyone interprets it differently, she [the teacher] wants to hear everyone’s opinion. . . . You learn different points of view and how to analyze different things. . . . It’s not just memorizing facts and then spitting them back to the teacher” (Davidson, 1999, p. 349).

Providing opportunities for students to take responsibility and engage in work they believe offers value to their communities also enhances the personal meaningfulness of school (McLaughlin, 2000). As one adolescent commented on the experience of community service:



It gives me a sense of responsibility, like what you've got to be [when you have a job]. . . . You've got to be there on time, work hard at it, and get done what needs to get done. That's why I am part of this [program] because I needed that responsibility (p. 6).

### Promoting a Sense of Belonging

Wentzel (1997) provides evidence on the kinds of behavior that adolescents interpret as caring. She asked students: "How do you know when a teacher cares about you?" and "How do you know when a teacher does not care about you?" In their responses to the former question, students described teachers who tried to make classes interesting; who talked and listened to them; who were honest, fair, and trusting; and who showed concern for them as individuals by asking whether they needed help, making sure they understood what was being taught, and asking them if something was wrong. In response to the second question, students described teachers who were boring or off task; who continued to teach when students weren't paying attention; who ignored, interrupted, embarrassed, insulted, or yelled at students; and who showed little interest in them personally by forgetting their name, not doing anything when they did something wrong, and not trying to explain something when the student didn't understand. In a second study by Wentzel (2002), students' perceptions of how fair their teacher was predicted their interest and enjoyment and their desire to learn. Negative feedback (e.g., scolding) was associated with low engagement in the form of disruptive behavior and violation of rules.

Newmann (1992) suggests that a sense of fair treatment is also critical to feeling connected to school. He cites studies suggesting substantial inequities related to race and income in some schools in expectations, quality of instruction, and due process. Such inequities are likely to disengage students who are treated unfairly. Adolescents who perceive differential treatment by teachers and counselors based on race are also less likely to value school (Roeser, Eccles, and Sameroff, 1998).

In the Davidson and Phelan (1999) study, students stressed two types of teacher behaviors that were important to them—learning something about their lives outside of school and communicating directly and regularly with them about their academic progress. They mentioned subtle behaviors that demonstrated concern about their academic success, such as stopping to clarify a point when a student appeared confused and asking why they had missed school. One student noted, "You go in and you're not there for a day and they notice and they say, 'Why are you tardy?' And they care" (p. 250). One adolescent explained in a study in which urban high school students were asked what advice they would give to a new teacher: "If there's confusion on my face I want you to see it. If there's disagreement

I want you to say, You disagree? Why?" (Cushman, 2002, p. 2). Another student complained about a particularly unmotivating teacher: "... he's just writing things on the board... He don't look at the class—like, Do you understand?—he's just teaching it to us. He sees that a couple of students understand it and he moves on. He doesn't make a space for us to ask" (p. 8). Students also mentioned humor, which seemed to lessen the social distance between teacher and student. Another theme in their comments concerned fair and respectful disciplinary practices that included student input.

Why does a caring teacher promote student engagement? One student explained that teachers' concern made students want to give back: "We owe her something now, now it's like we can't say 'we don't know this.'... We gotta do it [our work], we owe her that, you know" (Davidson, 1999, p. 346). Another student, who had highly variable attendance for different classes, attributed her regular attendance in one class to the teacher caring about her as a person, explaining:

Like whenever I'm absent or whenever we plan to cut or whatever, I say "No, I have to go to fifth period," all I care about is fifth period.... I have to go to that class (p. 347).

Some evidence suggests that a sense of belonging may, under some circumstances, be associated with the degree to which a student's own ethnic background is similar to that of other students. Finn and Voelkl (1993) found that "at-risk" (mostly minority) students in their study rated the school community (quality of teacher-student relationships and whether the school has "real school spirit") more positively when they attended schools with relatively high proportions of minorities. Using a nationally stratified sample of high school students (AddHealth), Johnson et al. (2001) similarly found that students reported greater attachment to school (feeling close to people at school, feeling a part of their school) when they attended schools with proportionally more students of their own race. School racial composition was not, however, associated with students' reports of their engagement in academic work.

In brief, students feel like they belong in educational settings in which they are treated fairly and with respect, and in which adults show they care about them as people. One way that students judge how much teachers care is by whether they hold them to high expectations and make an effort to ensure they are learning.

## BEYOND THE CLASSROOM

No teacher, however good or committed, can engage students in academic work in a school context that does not support the kinds of practices described in this chapter (see Chapter 4). Feelings of incompetence and no

control over outcomes produce the same disengagement in teachers as in students (Tschannen-Moran, Hoy, and Hoy, 1998). To protect their own sense of competence, teachers often attribute poor student performance to external factors over which they have no control, such as low student capacity, unsupportive homes, and lack of resources. Some teachers give up hope and stop trying. School administrators need to apply what is known about maintaining confidence and feelings of control and belonging in students to create supportive settings for teachers.

Teachers' efforts in individual classrooms can also be undermined by school organization and policies. For example, tracking diminishes students' choices and the access of relatively low-skilled students to peers with positive academic values. Highly competitive school environments in which only high-performing students are recognized publicly undermine many students' sense of competence. Students are not likely to develop a sense of belonging in schools that are organized in ways that make it difficult for teachers to know and develop personal relationships with students, or in schools that tolerate racism or bullying. Schools that do not promote a sense of community and shared purpose among teachers are not likely to provide clear expectations and goals or to promote a sense of connectedness and belonging among students. If teachers spend all of their workday engaged directly with students, they will not have sufficient time to prepare appropriately challenging and culturally meaningful instruction and activities that involve collaboration and higher order thinking. Teaching that engages students takes much more time to plan than the repetitive textbook teaching that many teachers resort to because of the other demands on their time.

School policies also affect the degree to which students feel encouraged and supported in their learning. For example, a policy of contacting parents after only a few unexplained student absences, providing additional help for students who fall behind, and helping students gain access to community resources to meet basic physical and psychological needs conveys to students that people care about them and want them to learn. Efforts to make school a comfortable and accessible place for parents are also important; one example is translating information into languages that parents speak (see Chapter 3, this volume). Efforts to increase student engagement therefore must involve the whole school. We elaborate on school-level policies and practices in Chapter 4.

## BEYOND THE SCHOOL

Student motivation is affected by policies made beyond the school as well as in the school. For example, policies at the state or district level related to curricula, textbooks, and resources for science laboratories and

technology have direct implications for the kind of instruction teachers can offer.

Recent policies that promote greater accountability and stricter standards may have particularly powerful implications for student engagement (Hanushek, 1997; National Research Council, 1996). In 2001, 17 states required students to pass a state-administered exit examination in order to graduate, and 7 more had committed to implementing graduation exams within the next several years. Four states required students to pass a state-wide exam as a condition for grade promotion, and four more were in the process of implementing this policy. Other states (e.g., Alabama and Florida) used participation in extracurricular activities as an incentive for students to maintain a specified grade point average (Education Week, 2002); 19 states take students' driving privilege away or refuse to grant a license based on failure to attend school or poor academic performance (Martinez and Bray, 2002). Similar policies have been implemented by a number of school districts, including New York City, Chicago, Philadelphia, and Boston.

Studies have not examined the effects of high-stakes testing for promotion or graduation on student motivation and engagement, and research assessing the effects on achievement is mixed (Bishop, 2002; Frederickson, 1994; Jacob, 2001). The evidence is clear, however, that they increase the likelihood of retention (Jacob, 2001; McDill, Natriello, and Pallas, 1986; Roderick and Engel, 2001). For example, during the 1999-2000 school year, more than half of all ninth graders entering Boston's comprehensive high schools could not read well enough to learn at the high school level. In an effort to rectify this problem, Boston Public Schools required, for the first time, that 9th graders pass a reading examination in order to be promoted to 10th grade. Although many students made sufficient progress during the school year to be promoted to 10th grade, more than one-third of the 1999-2000 freshmen had to repeat 9th grade the following year.

Accountability approaches that increase retention have a serious downside. The evidence is mixed on whether retention improves academic performance (Alexander, Entiwisle, and Dauber, 1994; McCoy and Reynolds, 1999; Pierson and Connell, 1992; Sheppard and Smith, 1989), and virtually all the empirical studies to date suggest that retention, even in the lower elementary grades, significantly increases the likelihood of dropping out (Balfanz, McPartland, and Shaw, 2002; Fine, 1991; Goldschmidt and Wang, 1999; Grissom and Shepard, 1989; Jimerson, 1999; Kaufman and Bradby, 1992; Neild and Balfanz, 2001; Roderick, 1994; Roderick, Nagaoka, Bacon, and Easton, 2000; Rumberger, 1995; Rumberger and Larson, 1998). For example, Rumberger (1995) found that students who were retained in grades 1 to 8 were four times more likely to drop out between grades 8 and 10 than students who were not retained, even after controlling for socio-

economic status, eighth-grade school performance, and a host of background and school factors.

Emerging evidence suggests that exams required for entering and graduating from high school may also promote dropping out (Balfanz and Letgers, 2001; Haney, 2001; Lee, 2001; Mizell, 2002; New York City Board of Education, Division of Assessment and Accountability, 2001). In Chicago reports are beginning to document students dropping out at a younger age, as well as in higher numbers (Lee, 2001). These negative effects of high-stakes testing appear to be stronger for students of color (Balfanz and Letgers, 2001; Haney, 2001).

In addition to their more direct effects on student engagement and motivation, school accountability and high-stakes testing can have indirect effects on students through their teachers. A study of school reform in a Texas school district (Berends, Chun et al., 2002) indicates that high-stakes testing can undermine the willingness and ability of teachers to engage students in meaningful learning. This occurs because teachers feel compelled to teach what is on the test, which often results in broad, superficial coverage. The multiple-choice format of typical tests promotes the teaching of isolated facts and skills rather than conceptual understanding and critical thinking. In an effort to raise test scores, some schools are imposing double-period test preparation sessions and requiring teachers to "teach to the test." Although such practices may improve high-stakes testing results, their effects on student motivation are questionable at best.

Although systematic studies are not available on the effects of high-stakes testing on student motivation, the research on motivation described in this chapter provides clues about what we can expect. The key concepts are perceptions of competence and control. Most likely, high-stakes testing has little effect on the motivation of the highest achieving students who are confident they will achieve ambitious educational goals. High-stakes testing should increase the motivation of students who are just getting by, but know they could do better. The risk of being retained in grade or denied a high school diploma may lead them to exert more effort on schoolwork than they would otherwise (National Research Council, 1996; Roderick and Engel, 2001), but only if they believe they have the capacity to succeed.

These positive effects, however, may come at the expense of students performing at the lowest level. As Roderick and Engel (2001, p. 221) suggest, high-stakes testing may benefit some by "making sacrificial lambs of the most vulnerable." Many students, especially in urban schools in economically disadvantaged communities, have experienced years of failure in school, and their skills lag far behind even minimal standards. Simply asking them to achieve higher standards without providing them with the assistance and support they need is more likely to discourage than to motivate them. Research on motivation has shown clearly that people do not

exert effort when they do not expect their efforts to lead to success. To the contrary, a perception that success is out of reach leads to helplessness and withdrawal.

Standards and high expectations are critical, but they must be genuinely achievable if they are to motivate student engagement. The committee's endorsement of challenging work and high standards does not imply endorsement of high-stakes testing. If it is implemented, however, it is essential that it is accompanied by a great deal of support and resources devoted to helping students achieve the standards. We base our conclusion primarily on achievement motivation research that does not involve high-stakes testing. But there is some evidence from research at the middle grades that high-stakes testing for promotion may lead to improved student achievement when it is combined with extra instructional resources for low-achieving students (Roderick and Engel, 2001). Raising standards without providing this kind of support will be counterproductive.

### A WAYS TO GO

Research on factors that motivate students to be engaged in academic work is not definitive, but it provides a solid foundation that can be used to guide practice. Currently, the practices supported by research are least likely to be observed in schools serving the students who need them most. Many developmental studies have shown substantial declines in achievement motivation and engagement in learning as children progress through school (Jacobs et al., 2002; Stipek and MacIver, 1989). Steinberg, Brown, and Dornbusch (1996) also found a decline from 7th to 9th grade in the number of students who claimed to feel a part of their school or close to people at their school. Perhaps not coincidentally, studies comparing educational practices at different levels suggest that the practices known to promote motivation are also less likely to be seen at the secondary than at the elementary level. For example, at the point that autonomy needs are most powerful—in adolescence—school environments usually become more controlling (Eccles and Midgley, 1989). Perhaps this is why all of the 56 Latino 9th graders that Yowell (1999) interviewed named an elementary school teacher when asked who their favorite teacher was. Furthermore, the schools serving adolescents who are at greatest risk of becoming seriously disengaged from school are the most likely to be large, impersonal, and highly controlling, and to convey low expectations for academic success.

Although examples of schools that promote high levels of engagement and achievement for low-income youth and students of color are few and far between, they are the proof we need to move forward with some confidence that progress can be made. The MetLife (2001) survey mentioned

earlier, found that even among the low-income students in their sample, 89 percent claimed that the statement “I really want to learn” applied to them. In the 2002 survey, 84 percent of the students claimed that they worry about doing well in school (MetLife, 2002). The remaining chapters in this volume give further guidance for creating high schools that maintain students’ desire to learn and to succeed by showing how the general principles of motivating contexts described here look in real schools.